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## ABSTRACT

The report cites accomplishments of a program designed to meet the needs of gifted and talented handicapped students (elementary to junior high level). Objectives included identifying and mainstreaming the students, and promoting gains in reading, math, and writing ability. Accomplishments cited include an inservice training program developed by six mainstream and nine special education teachers. Evaluation data are reported for the following objectives (sample findings in parentheses): mainstreaming (34 handicapped pupils were mainstreamed in one or more classes for the gifted); reading (56% showed grade level growth); and mathematics and writing (73% were rated as performing excellently or above average in writing ability). Classroom observational data showing no significant differences in classroom behavior between target and comparison students are reported. Problems with program implementation (such as teacher reluctance and concerns over test score reliability) are noted. (CL)

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ANNUAL EVALUATION REPORT

SEQUENCE #: 43-82-5015

NYC I.D. #: 5001-62-24503

ESEA TITLE IV PART C PROJECT REPORT  
1981-82 COVER SHEET

Name & Address of School District: NEW YORK CITY PUBLIC SCHOOLS

Congressional Districts: 6-23 110 LIVINGSTON STREET  
BROOKLYN, NEW YORK 11201

Title of Project: PROGRAM FOR SPECIAL GIFTED CHILDREN

District Enrollment: 924,215 PUBLIC; 311,359 PRIVATE

Curriculum Area: SPECIAL EDUCATION

Target Population: HANDICAPPED GIFTED STUDENTS

Type & Number of Direct Participants in Project:

	Public	Private	Total
Pupils	<u>34</u>	<u>0</u>	<u>34</u>
Teachers	<u>1</u>	<u>0</u>	<u>1</u>
Others	<u>0</u>	<u>0</u>	<u>0</u>

Total Number of School Districts Served by Project: 1

At End of This Budget Period, Project  
Will have Been Funded by Title IV-C: 2 YEAR(S)

Fiscal Year Source of Funds: 1982

Budget Period: 9/1/81 To 8/31/82

Project Contact Person:

Evaluation Manager:

ALLISON TUPPER  
DIVISION OF SPECIAL EDUCATION  
110 LIVINGSTON STREET/ROOM 446  
BROOKLYN, NEW YORK 11201  
(212) 522-1570

ROBERT J. TOBIAS  
OFFICE OF EDUCATIONAL EVALUATION  
110 LIVINGSTON STREET/ROOM 736  
BROOKLYN, NEW YORK 11201  
(212) 596-5136

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## ABSTRACT

File Number: 43-82-5015

- |                     |  |                       |
|---------------------|--|-----------------------|
| 1. School District: | <u>NEW YORK CITY PUBLIC SCHOOLS</u>                | <u>924,215</u>        |
|                     | Popular Name                                       | Total Enrollment K-12 |
|                     | <u>110 LIVINGSTON STREET, BROOKLYN, N.Y. 11201</u> | <u>KINGS</u>          |
|                     | Address  | County                |
2. Title of Project: PROGRAM FOR SPECIAL GIFTED CHILDREN
3. Type of Grant: DEVELOPER
4. Total Budget: 33,128
5. Pupils Served: 34 Number Public 0 Number Non-Public

### Needs Statement Summary:

Although programs are available for gifted and talented students, there are few, if any, that are designed to meet the needs of handicapped students who are gifted. This program provided a systematic procedure for identifying and serving such students in the most appropriate and least restrictive environment.

### Major Objectives:

- successful mainstreaming of 80 percent of participating students, as indicated by maintenance on class register and teacher-assigned grades of B or higher;
- improved reading level of at least one year, as measured by the Gates-MacGinitie Reading Test for 80 percent of the students mainstreamed in language arts;
- growth in math skills of at least one year, as measured by pre- and post-testing on the Step Test, for 80 percent of the students mainstreamed in math;
- improvement of one grade level in writing ability, as indicated by pre- and post-testing on the Basic Competency Test in writing, for 80 percent of the students mainstreamed in language arts.

### Major Activities:

- 34 handicapped pupils were mainstreamed in one or more classes for the gifted through a process of identification, screening, and counseling;
- special education and mainstream teachers of the gifted received in-service training to prepare them for the program; and
- a program manual and in-service course on the education of the gifted handicapped were developed through per-session activities.

Major Evaluation Finding(s):

- 75 percent of the students mainstreamed before October 15, 1981 met the attendance criterion; 83 percent of these met the grades criterion; and 96 percent of the students mainstreamed after October 15, 1981 met the attendance criterion;
- 56 percent of the students mainstreamed in language arts showed reading gains equivalent to one grade level.
- no formal test scores were reported for math and writing; from supplementary data it was inferred that had the test scores been supplied the math objective, but not the writing objective, would have been met.
- other data indicated substantial academic and social/behavioral gains.

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## I. NEEDS

Although programs are available for gifted and talented students, there are few, if any, that are appropriate to meet the needs of handicapped students who are gifted. The Program for Special Gifted Children of the Division of Special Education provided a systematic procedure for identifying and serving such students in the most appropriate and least restrictive environment.

## II. OBJECTIVES

This program was designed to identify and mainstream gifted, handicapped students and to train both their mainstream and special education teachers. Specific objectives for the 1981-82 cycle were as follows:

- successful mainstreaming of 80 percent of the students entering the program before October 15, 1981, as indicated by maintenance on class register and teacher-assigned grades of B or higher (Objective 1.1);
- successful mainstreaming of 80 percent of students entering the program after October 15, 1981, as indicated by maintenance on class register (Objective 1.2);
- reading growth of at least one year, as measured by the Degrees of Reading Power Test (D.R.P.), for 80 percent of those students in Grade 4 or above (Objective 2.1);
- reading growth of at least one year, as measured by pre- and post-testing on the Gates-MacGinitie Reading Test, for 80 percent of those students in classes below Grade 4 (Objective 2.2);
- growth in math skills of at least one year, as measured by pre- and post-testing on the Step Test, for 80 percent of the students mainstreamed in math (Objective 3); and
- improvement of one grade level in writing ability for 80 percent of the students mainstreamed in language arts, indicated by pre- and post-testing on the Basic Competency Test in writing (Objective 4).

### III. ACTIVITIES ACCOMPLISHED

During its two years of operation, the Program for Special Gifted Children identified a total of 44 handicapped students with above-average to superior ability and placed them in language arts, mathematics, or social studies classes for the intellectually gifted (I.G.C.).

During the first funding year, 1980-81, the project coordinator held nine meetings with district and site supervisors in Community School District 2 to present, discuss, and implement the program. A number of schools were identified as having gifted, handicapped students whose intellectual needs were not currently being met and the program was subsequently established at the following sites: P.S. 3, P.S. 124, P.S. 158, I.S. 70, J.H.S. 65 (Annex), and J.H.S. 104. Three new sites, P.S. 6, P.S. 11, and P.S. 126, were added during the 1981-82 funding year.

During the 1980 fall term, 20 pupils were selected and prepared for the program through a process of identification, screening, and counseling. Special education teachers and students nominated prospective participants who were then screened by selection committees made up of the project coordinator, school principals, special education supervisors and teachers, I.G.C. teachers, and school-based support team members to assess their prospects for success in the I.G.C. program. In addition to the assessment of aptitude, which was based on existing intelligence test data, selection was also dependent on the special education teachers' ratings of the nominees' motivation, creativity, and leadership potential, as indicated by scores on the Renzulli-Hartman Scale for Rating Behavioral Characteristics of Superior Students. Following screening, 18 of the 20

students nominated were mainstreamed in I.G.C. language-arts classes one period a day during the spring 1981 semester.

During 1981-82, an additional 30 students were nominated and evaluated for participation. In all, 34 students were mainstreamed during the second program year; 26 were new participants and eight continued from the previous year.

To facilitate program implementation and provide in-service training, the coordinator visited each of the participating sites at least twice a month. Twenty-two teachers during the first year and 32 during the second year received individual training; sessions focussed on preparation of students for mainstreaming and effective instructional techniques for meeting the special education needs of students who are both gifted and handicapped.

During 1980-81, six mainstream and nine special education teachers developed an in-service course and program manual in after-school and weekend meetings. During the 1981-82 program year, the manual was distributed to participating mainstream and special education teachers and 23 teachers attended the in-service course taught by the Special Education Training and Resource Center.



#### IV. EVALUATION

##### PREVIOUS FINDINGS

Findings of the evaluation of the 1980-81 cycle indicated that two out of four objectives were met during the first program year. The criterion of regular attendance was met by all 13 students for whom attendance data were submitted and the criterion for the writing objective was exceeded; thirteen out of 15 students for whom data were available (86.7 percent), as opposed to the proposed 80 percent, scored above grade level in writing. However, only 30 percent, instead of the proposed 100 percent, of the ten students who received teacher-assigned grades met the criterion of B or higher. Finally, 53.5 percent, instead of 80 percent, showed reading gains of at least four D.R.P. units.

##### CURRENT FINDINGS

Program records indicated that 34 students were mainstreamed during the 1981-82 school year. Ten were in grades two to four, 13 were in grades five through seven, and 11 were in grades eight and nine; 22 were in elementary schools, five were in intermediate schools, and seven were in junior high schools. The distribution of students by special education program was as follows. 19 in classes for the emotionally handicapped; eight in classes for the neurologically impaired; six in resource rooms; and one in classes for students with neurological impairment and emotional handicap. Eight students were mainstreamed prior to October 15, 1981; three between November, 1981 and January, 1982; 22 in February and March; and one in May. The dates of pre-testing varied accordingly; post-tests were administered during May and June, 1982.

## Mainstreaming

Evaluation objectives for the 1981-82 cycle were similar, but not identical, to those for 1980-81. First, to determine whether 80 percent of the students entering the program before October 15, 1981 were mainstreamed successfully in an I.G.C. class at least one period per day (Objective 1.1), program records were reviewed. These data were analyzed and compared to the proposed criteria of maintenance on class register through June, 1982 and grades of B or better. Program records were also reviewed for those students mainstreamed after October 15, 1981 and attendance data were compared to the proposed criterion of maintenance of 80 percent of the students on class register through June, 1982 (Objective 1.2).

It was found that six out of eight, or 75 percent, of the students mainstreamed prior to October 15, 1981 remained on register in the I.G.C. class through the end of the 1981-82 program year. Grades were available for the six students who participated for the full year; three received A, two received B, and one received C. Thus, five students out of six, or 83 percent, met the second criterion for successful mainstreaming and, accordingly, Objective 1.1 was partially met. Of the 26 students mainstreamed after October 15, 1981, 25 or 96 percent, remained on register in their I.G.C. classes through the end of the school year; accordingly, Objective 1.2 was met.

## Reading

To determine whether the reading objective (Objective 2) was attained, pre- and post-test scores on the Gates-MacGinitie Reading Test were com-

pared. As originally proposed, older students, i.e., those in Grade 4 or above, were to be assessed on the D.R.P. and younger students were to be given the Gates-MacGinitie; however, in order to generate grade-equivalent scores for all students, the Gates-MacGinitie was administered to all. After taking into account the dates of pre-testing, it was found that 14 of the 25 students with complete data (56 percent) showed growth in reading which was equivalent to one grade level or more, six students (24 percent) showed gains equivalent to less than one year's growth, and five students (20 percent) showed declines; accordingly, Objective 2 was not attained.

#### Mathematics and Writing

The mathematics and writing objectives (Objective 3 and 4) proposed that 80 percent of the students in I.G.C.. math or language arts would improve by at least one grade level. Although no formal pre- and post-test scores were reported by the program in either area, supplementary data were gathered from which students' degree of success can be inferred. One form of supplementary data were I.G.C. teacher questionnaires which asked for ratings on the following aspects of student performance: capacity for attending a full 40-minute period; ability and potential for meeting I.G.C. academic requirements; appropriate interaction with teacher and peers; and how much the student had profited from the mainstreaming experience. Ratings were made on a scale of one to five. Another item of supplementary data which was reported for some students was admission to one of the city's special academic high schools, e.g. Performing Arts, or Bronx Science.

Seven students attended I.G.C. math classes and, of these, all five for

whom supplementary data were available apparently did exceptionally well. Two were going on to specialized academic high schools, two received the highest ratings on all teacher-questionnaire items, and one had the highest or next-to-highest rating on all but one teacher-questionnaire item. Accordingly, it can be inferred that Objective 3 would have been met had formal testing been carried out, and that these students showed substantial benefits from participation in the program.

A total of 29 students attended I.G.C. language-arts classes and, in the absence of formal pre- and post-testing of writing ability, supplementary data were again examined; data were available for 15 students. Teacher-questionnaire ratings of pupil performance were averaged for each student to obtain overall scores from one to five; five indicated excellent performance, four good, three average, two fair, and one poor. Based on this method of interpretation the work of four students was rated excellent, seven good, three average, and one fair. Thus only 11 out of 15, or 73 percent of the students, were rated as having performed excellently or above average and it can be inferred that they would have met the criterion of one year's improvement in writing ability if formal assessment had been carried out by the program. Accordingly, it cannot be inferred that Objective 4 would have been fully met.

#### Other Data

Although achievement data were limited, other data suggested that this program was effective in meeting the special needs of gifted, handicapped students. For example, their mainstream and special education teachers recommended that 26 of the 31 student who remained in the program through

June, 1982 either continue or increase their participation in I.G.C. classes; moreover, five of these students were decertified and placed in regular classes for the coming year. In only five cases was it recommended that a student's suitability for mainstreaming be reconsidered.

### Classroom Observations

Also indicative of success were observational data which showed that the classroom participation of program students was similar to that of their I.G.C. peers. Fifteen randomly selected students were observed on four different occasions, three times in the mainstream I.G.C. class and once in the special education classroom. In each class (i.e., mainstream I.G.C. and special education) paired observations were made on a randomly-selected comparison student. For each observation, two ten-minute periods of ten-second time samples were collected for the target-comparison pair; each ten-minute period consisted of 20 discrete ratings for each student. Classroom behavior was categorized as follows:

- On-task, non-interactive: student is participating in classroom activity by listening, writing, or reading silently.
- On-task, active or verbal: student is participating in classroom activity by asking or answering questions.
- Off-task: student is not paying attention to classroom activity.

Results of these observations, which are presented in Table 1, showed no significant differences in classroom behavior between target and comparison students in either type of classroom setting. In the mainstream I.G.C. classes the gifted, handicapped students were observed in non-interactive on-task behavior an average of 87 percent of the time compared to an average of 88

percent for the I.G.C. students. Target students averaged five percent of the time in verbal on-task behavior and their counterparts averaged four percent. For off-task behavior the mean percentages were eight percent for target and seven percent for comparison students. Comparisons of these means for the target and comparison groups through t tests for independent means did not show any statistically significant differences.

In the special education classes the gifted, handicapped students were observed in non-interactive on-task behavior an average of 87 percent of the time and the comparison students were observed for an average of 90 percent. Average proportion of verbal on-task behavior was seven percent for target students and four percent for their counterparts. Average proportion of off-task behavior was five percent for target students and six percent for others. Again, t tests did not reveal any significant differences between the means of the two groups.

### Teacher Reports

Teacher responses to a questionnaire on their experiences and perceptions of the program were largely favorable. Of the 44 questionnaires that were mailed to participating teachers 24, or 55 percent, were returned; 12 of the respondents were special education teachers and 12 were I.G.C. teachers.

The major findings were as follows:

- Nine (75 percent) of the I.G.C. and ten (83 percent) of the special education teachers reported that students in the program frequently or always maintained attention for an entire 40-minute period.

- Although seven (58 percent) I.G.C. and nine (75 percent) special education teachers thought students frequently or always had the potential to keep up with class requirements, only five (41 percent) of the former and four (33 percent) of the latter stated that they regularly did so.
- Seven (58 percent) I.G.C. and nine (75 percent) special education teachers felt that students interacted appropriately with teachers and six (50 percent) and eight (67 percent), respectively, felt they interacted appropriately with peers.
- Eight (67 percent) I.G.C. and six (50 percent) special education teachers felt they had been adequately prepared for participation in the program.
- Nine (75 percent) I.G.C. as opposed to three (25 percent) special education teachers felt their understanding of how students can be both gifted and handicapped had improved substantially as a result of their participation in the program; however, eight (67 percent) each reported that their teaching remained the same.
- Eight (67 percent) I.G.C. and five (41 percent) special education teachers felt that the students had profited from the experience and ten (83 percent) of the former and eight (67 percent) of the latter felt the program should be continued.

## V. PROBLEMS

Implementation of the program was hampered by a number of obstacles, especially during the first year. In addition to the usual start-up problems associated with any new program, there were several other complications.

Receptivity by principals and teachers reportedly varied among schools. While most principals were cooperative, some seemed to not fully understand the concept of mainstreaming. At some sites special education teachers expressed reluctance to the mainstreaming of their best students; in others, teachers

of the gifted were not inclined to accept them, fearing added work and other burdens. As a result, some teachers did not attend training workshops. Even in the best of circumstances time was limited for meetings between special education and mainstream teachers who, despite being in the same school, were often unfamiliar with one another's curriculum and students. More comprehensive training of participating teachers improved communication and the coordination of pupils services during the second program year.

Documenting pupil progress also presented problems. The performance of many of these students, particularly the emotionally handicapped, often varies with internal and environmental factors which can fluctuate daily; accordingly, the reliability of test scores and the evaluation of pupil progress are impaired. The results of classroom observations showed that the handicapped and non-handicapped gifted students behaved and participated almost identically and their teachers recommended that all but five of the students continue to participate in the mainstream I.G.C. classes; the results of test scores of mainstreamed students, on the other hand, were less encouraging. The problem of test reliability is inherent to the evaluation of special education programs and may be remedied by more frequent assessment with either the same or similar instruments.

In spite of these complications, the program demonstrated that I.G.C. mainstreaming is a viable educational alternative for many handicapped students who are also gifted.

## VI. FUTURE ACTIVITIES

Due to fiscal cutbacks, funds which were projected for the third year of



operation were withdrawn. As a result, the program has undergone modification and it is not operating as a separate program. It has been beneficial, however, in laying the groundwork for increased mainstreaming of special education students in academic subjects.

TABLE 1

Mean Percentage of On-Task and Off-Task Behavior  
of Target and Control Students in  
Special Education and Intellectually-Gifted Classes

Behavior	Students	Special Education Classes <sup>a</sup>			Intellectually-Gifted Classes <sup>b</sup>		
		Mean (S.D.)	Mean Difference	t	Mean (S.D.)	Mean Difference	t
On-Task, Non-Verbal	Target (N=15)	87.3 (11.0)	2.7	0.7	87.0 (10.8)	1.7	0.4
	Control (N=15)	90.0 (10.3)			88.7 (9.3)		
On-Task, Verbal	Target (N=15)	7.2 (9.1)	3.0	1.1	4.8 (4.3)	1.2	0.8
	Control (N=15)	4.2 (5.1)			3.6 (4.0)		
Off-Task	Target (N=15)	5.0 (8.1)	0.8	0.3	7.9 (11.3)	0.3	0.1
	Control (N=15)	5.8 (5.9)			7.4 (9.2)		

<sup>a</sup>Percentages are based on 40 ten-second observations per child.

<sup>b</sup>Percentages are based on 120 ten-second observations per child.

Gifted, handicapped students participated almost identically to other students in both classroom settings. Their behavior was similar to that of other gifted students in the I.G.C. classes and to that of other handicapped students in the special education classes.